

WHAT IS CLAIMED IS:

1. A method for fabricating a semiconductor laser device including a plurality of semiconductor laser elements on a sub mount,

said method comprising:

an emission source forming step of stacking a semiconductor layer structure on a single substrate and forming a plurality of emission sources;

a mounting step of mounting the substrate with the emission sources on the sub mount; and

a substrate cutting step of cutting the substrate between the emission sources, so as to form a plurality of laser elements each including the substrate and an emission source.

2. The method as set forth in claim 1, wherein:

said emission source forming step further comprises the step of forming isolation grooves in the semiconductor layer structure after forming the emission sources, so as to isolate the emission sources from one another.

3. The method as set forth in claim 2, wherein the isolation grooves are formed at greater intervals than the substrate.

4. The method as set forth in claim 3, wherein the isolation grooves taper toward the substrate.
5. The method as set forth in claim 2, wherein the isolation grooves are formed by etching.
6. The method as set forth in claim 2, wherein the isolation grooves in the semiconductor layer structure are defined by a specific crystal face of a semiconductor material of the semiconductor layer structure.
7. The method as set forth in claim 1, wherein the sub mount is an insulator.
8. The method as set forth in claim 7, wherein the sub mount is made of ceramic.
9. The method as set forth in claim 1, wherein the sub mount is a semiconductor.
10. The method as set forth in claim 1, wherein said substrate cutting step is carried out by any one of etching, blade dicing, and stealth dicing.
11. A semiconductor laser device including a

plurality of semiconductor laser elements on a sub mount,

said semiconductor laser device obtained by:

an emission source forming step of stacking a semiconductor layer structure on a single substrate and forming a plurality of emission sources;

a mounting step of mounting the substrate with the emission sources on the sub mount; and

a substrate cutting step of cutting the substrate between the emission sources, so as to form a plurality of laser elements each including the substrate and an emission source.

12. A laser beam printer including a semiconductor laser device that includes a plurality of semiconductor laser elements on a sub mount,

said laser beam printer obtained by:

an emission source forming step of stacking a semiconductor layer structure on a single substrate and forming a plurality of emission sources;

a mounting step of mounting the substrate with the emission sources on the sub mount; and

a substrate cutting step of cutting the substrate between the emission sources, so as to form a plurality of laser elements each including the substrate and an emission source.